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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/882,471	06/14/2001	Lee McBryde	4006P001	8067

8791 7590 07/28/2003

BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD, SEVENTH FLOOR
LOS ANGELES, CA 90025

EXAMINER

WHITTINGTON, ANTHONY T

ART UNIT	PAPER NUMBER
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2133

3

DATE MAILED: 07/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/882,471

Applicant(s)

MCBRYDE ET AL.

Examiner

Anthony T Whittington

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim1 is rejected under 35 U.S.C. 102(b) as being anticipated by DeKoning et al. (U.S. 5,883,909).

As per claim 1, DeKoning et al. teaches a data management architecture system comprising all the elements of the instant application. DeKoning et al. teaches an XOR engine (62) in Figure 2. DeKoning et al. teaches a host network interface (16) coupled to the XOR engine, which is inside the RPA (20) for coupling to a host computer system in Figure 1. DeKoning et al. teaches a cache (64) coupled to the XOR engine in Figure 2. DeKoning et al. teaches a storage device (22) interface coupled to the cache(64, Fig. 2), which is inside the RPA(20) in Figure 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeKoning (U.S. 5,883,909) in view of Neufeld(U.S. 5,668,971).

As per claims 2 and 6, DeKoning et al. substantially teaches a data management architecture system comprising all the elements of the instant application. DeKoning et al. teaches an XOR engine (62) in Figure 2. DeKoning et al. teaches a host network interface (16) coupled to the XOR engine, which is inside the RPA (20) for coupling to a host computer system in Figure 1. DeKoning et al. teaches a cache (64) coupled to the XOR engine in Figure 2. DeKoning et al. teaches a storage device(22) interface coupled to the cache(64, Fig. 2), which is inside the RPA(20) in Figure 1. DeKoning et al. teaches a logic means (62) for generating XOR parity bytes, checking XOR parity and correcting detected parity errors. De Koning et al. does not explicitly disclose a first transceiver and a second transceiver.

However Neufeld, an analogous art, teaches a first transceiver (320) and a second transceiver (319) in Figure 9. Neufeld refers to Figure 9 in more detail in column 15, lines 54-65.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify DeKoning et al.'s system by combining Neufeld's multiple transceivers with DeKoning et al.'s system. This modification would have been obvious

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to a person having ordinary skill in the art because a person having ordinary skill in the art would have been motivated to use multiple transceivers to perform multitasking operations of read and write operations in order to improve overall performance, as suggested by Neufeld in column 3, lines 35-37.

As per claims 3 and 5, DeKoning et al. substantially teaches a data management architecture system comprising all the elements of the instant application. DeKoning et al. teaches a physical interface (10), a protocol engine (20) coupled to the bus and a memory(22) coupled to the bus in Figure 1. DeKoning et al. does not explicitly disclose a micro-controller, receive/transmit buffers and interface buffers for the receive/transmit buffers.

However Neufeld, an analogous art, teaches a micro-controller (62) and interface buffers (60) in Figure 1. Neufeld teaches receive/transmit buffers (316,319,320) in Figure 9.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify DeKoning et al.'s system by combining Neufeld's multiple transceivers with DeKoning et al.'s system. This modification would have been obvious to a person having ordinary skill in the art because a person having ordinary skill in the art would have been motivated to use multiple transceivers to perform multitasking operations of read and write operations in order to improve overall performance, as suggested by Neufeld in column 3, lines 35-37.

As per claims 4 and 7, DeKoning et al. substantially teaches a data management architecture system comprising all the elements of the instant application. DeKoning et al. teaches an XOR engine (62) in Figure 2. DeKoning et al. teaches a host network interface (16) coupled to the XOR engine, which is inside the RPA (20) for coupling to a host computer system

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in Figure 1. DeKoning et al. teaches a plurality of cache segments (64) coupled to the XOR engine in Figure 2. DeKoning et al. teaches a storage device (22) interface coupled to the cache (64, Fig. 2), which is inside the RPA 20) in Figure 1. DeKoning et al. teaches a logic means (62) for generating XOR parity bytes, checking XOR parity and correcting detected parity errors. DeKoning et al. does not explicitly disclose a bus funnel, bus expander, dual port memory array, first transceiver and a second transceiver.

However Neufeld, an analogous art, teaches a bus expander/funnel (48) and dual port memory (56) in Figure 2A. Neufeld teaches a first transceiver (320) and a second transceiver (319) in Figure 9. Neufeld refers to Figure 9 in more detail in column 15, lines 54-65.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify DeKoning et al.'s system by combining Neufeld's multiple transceivers with DeKoning et al.'s system. This modification would have been obvious to a person having ordinary skill in the art because a person having ordinary skill in the art would have been motivated to use multiple transceivers to perform multitasking operations of read and write operations in order to improve overall performance, as suggested by Neufeld in column 3, lines 35-37.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of art with respect to data management architecture in general:

U.S. Pat No. 6,542,960 to Wong et al.

U.S. Pat No. 6,161,165 to Solomon et al.

U.S. Pat No. 6,341,342 to Thompson et al.

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U.S. Pat No. 6,370,616 to Callison et al.

U.S. Pat No. 6,460,122 to Otterness et al.

U.S. Pat No. 6,513,098 to Allingham

U.S. Pat No. 5,737,744 to Callison et al.

U.S. Pat No. 5,774,641 to Islam et al.

U.S. Pat No. 5,941,969 to Ram et al.

U.S. Pat No. 6,185,652 to Shek et al. et al.

U.S. Pat No. 6,223,301 to Santeler et al.

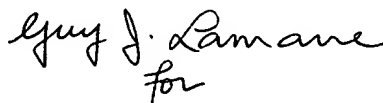
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony T Whittington whose telephone number is 703-306-5617. The examiner can normally be reached on Monday-Friday 7:30a.m.-4:00p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 703-305-9595. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.



A.W.
July 23, 2003



Albert DeCady
Primary Examiner